

REMARKS

In the Official Action mailed on **August 26, 2004** the Examiner reviewed Claims 1-30. Claims 1-30 were rejected under 35 U.S.C. §101 as being directed to non-statutory subject matter. Claims 1-30 were rejected under 35 U.S.C. §103(a) as being unpatentable over Plum et al. (USPN 4,817,027, hereinafter "Plum").

Rejections under 35 U.S.C. §101

Claims 1-30 were rejected as being directed to non-statutory subject matter. Applicant respectfully points out that the present invention is directed to receiving a representation of a numerical expression, storing the representation in computer memory, and **automatically generating code** to compute a derivative of the numerical expression, and not to computing the derivative itself (see FIG. 2 and page 8, lines 2-8 of the instant application). Since the present invention does more than merely generate a numerical output, but instead generates code to solve a generalized problem, the present invention is directed to statutory subject matter.

Applicant has amended independent claims 1, 11, and 21 to clarify that the present invention receives a representation of a numerical expression, stores the representation in computer memory, and automatically generates code to compute a derivative. These amendments find support in FIG. 2 and on page 8, lines 2-8 of the instant application.

Rejections under 35 U.S.C. §103(a)

Claims 1-30 were rejected as being unpatentable over Plum. Applicant respectfully points out that Plum teaches **evaluating partial derivatives** of a given function at specified values (see Plum, col. 2, lines 42-48).

In contrast, the present invention is directed to **automatically generating code** to compute a derivative, and not to computing the derivative itself (see

FIG. 2 and page 8, lines 2-8 of the instant application). Automatically generating code to compute a derivative is beneficial because it provides an adaptable system for computing derivatives of arbitrary functions—not just solving for a derivative of a given function. There is nothing within Plum, either explicit or implicit, which suggests automatically generating code to compute a derivative.


Accordingly, Applicant has amended independent claims 1, 11, and 21 to clarify that the present invention automatically generates code to compute a derivative. These amendments find support in FIG. 2 and on page 8, lines 2-8 of the instant application.

Hence, Applicant respectfully submits that independent claims 1, 11, and 21 as presently amended are in condition for allowance. Applicant also submits that claims 2-10, which depend upon claim 1, claims 12-20, which depend upon claim 11, and claims 22-30, which depend upon claim 21, are for the same reasons in condition for allowance and for reasons of the unique combinations recited in such claims.

CONCLUSION

It is submitted that the present application is presently in form for allowance. Such action is respectfully requested.

Respectfully submitted,

By 
Edward J. Grundler
Registration No. 47,615

Date: September 2, 2004

Edward J. Grundler
PARK, VAUGHAN & FLEMING LLP
508 Second Street, Suite 201
Davis, CA 95616-4692
Tel: (530) 759-1663
FAX: (530) 759-1665